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United States  
Department of  
Agriculture



Natural  
Resources  
Conservation  
Service

# Washington Basin Outlook Report June 1, 1995





# Basin Outlook Reports

## and Federal - State - Private Cooperative Snow Surveys

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### *How forecasts are made*

Most of the annual streamflow in the Western United States originates as snowfall that has accumulated high in the mountains during winter and early spring. As the snowpack accumulates, hydrologists estimate the runoff that will occur when it melts. Predictions are based on careful measurements of snow water equivalent at selected index points. Precipitation, temperature, soil moisture and antecedent streamflow data are combined with snowpack data to prepare runoff forecasts. Streamflow forecasts are coordinated by Natural Resources Conservation Service and National Weather Service hydrologists. This report presents a comprehensive picture of water supply conditions for areas dependent upon surface runoff. It includes selected streamflow forecasts, summarized snowpack and precipitation data, reservoir storage data, and narratives describing current conditions.

Snowpack data are obtained by using a combination of manual and automated SNOTEL measurement methods. Manual readings of snow depth and water equivalent are taken at locations called snow courses on a monthly or semi-monthly schedule during the winter. In addition, snow water equivalent, precipitation and temperature are monitored on a daily basis and transmitted via meteor burst telemetry to central data collection facilities. Both monthly and daily data are used to project snowmelt runoff.

Forecast uncertainty originates from two sources: (1) uncertainty of future hydrologic and climatic conditions, and (2) error in the forecasting procedure. To express the uncertainty in the most probable forecast, four additional forecasts are provided. The actual streamflow can be expected to exceed the most probable forecast 50% of the time. Similarly, the actual streamflow volume can be expected to exceed the 90% forecast volume 90% of the time. The same is true for the 70%, 30%, and 10% forecasts. Generally, the 90% and 70% forecasts reflect drier than normal hydrologic and climatic conditions; the 30% and 10% forecasts reflect wetter than normal conditions. As the forecast season progresses, a greater portion of the future hydrologic and climatic uncertainty will become known and the additional forecasts will move closer to the most probable forecast.

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# Washington Water Supply Outlook

JUNE 1995

June marks the end of another snow season in Washington. The snow has melted and run off to be cycled into the lives of Pacific Northwest populations. After several water-short years we have finally gained back a little ground. Though we aren't out of danger, the outlook is a little brighter.

This is the last monthly report for water-year '95. We will begin a new season in October and start reporting on January 1, 1996. Until then we will be maintaining, repairing and expanding our SNOTEL network so we may continue providing up-to-date and accurate climatic data.

Things to look for in water-year '96: New SNOTEL sites in Whatcom and King Counties, additional streamflow forecast points, additional manual snow courses, enhanced computer capabilities, and continued dedication to customer service.

I will be seeing some of you throughout the summer, but for those I don't, have a wonderful and happy summer.

*Kate Patton*  
Hydrologic Technician

## General Outlook

May was a warm and dry month bringing very little precipitation and melting snow at record paces. Temperatures were three to six degrees above normal. Snowpack averages plummeted while May streamflows along the east side of the Cascades rose to near flood stage. National Weather Service climatological stations indicated near to below average precipitation for the entire state. SNOTEL showed faster than normal meltout for May. SNOTEL sites with above average snow water equivalent a month ago melted out within near normal dates.

## Snowpack

The June 1 statewide snowpack is slightly below normal. Continuous warm temperatures in May rapidly melted last months above average conditions. Only high elevation SNOTEL sites have snow remaining. The rapid snowmelt have made it almost impossible to calculate accurate basin averages. Available basin averages are: Spokane River Basin; 34%, Pend Oreille River Basin; 83%, Kettle River Basin; 63%, Okanogan; 94%, Methow River Basin; 107%, Chelan Lake Basin; 110%, Wenatchee; 90%, Yakima River Basin; 65%, Cowlitz River Basin; 95%, Lewis River Basin; 110%, White River Basin; 82%, Green River Basin; 60%, Snohomish River Basin; 46%, Skagit River Basin; 116%, and Baker River Basin; 47%. Basins not listed either have 0% averages or do not have adequate data available.

## Precipitation

Reports from National Weather Service stations showed May precipitation at less than 50% of normal for the Olympic and North Puget Sound river basins. The crest of the Cascades, the Yakima and the lower Columbia Basins had near normal precipitation. The rest of the state received below normal amounts of precipitation. Accumulated precipitation from October 1, 1994 remains above average for Eastern Washington with some central locations much above average. Most of the Westside is closer to normal. Year-to-date precipitation ranges from 137% of normal in the Wenatchee-Chelan River basins, to 97% in the Olympic Peninsula River basins. May basin reports range from 77% of normal in the Yakima River Basin to only 28% of average in the Olympic Peninsula River basins. SNOTEL sites in Washington showed high elevation water-year-precipitation values to be 116% of average on June 1.

BASIN	MAY PERCENT OF AVERAGE	WATER YEAR PERCENT OF AVERAGE
Spokane.....	53.....	105
Colville-Pend Oreille.....	53.....	107
Okanogan-Methow.....	74.....	115
Wenatchee-Chelan.....	73.....	137
Yakima.....	77.....	118
Walla Walla.....	75.....	123
Cowlitz-Lewis.....	64.....	118
White-Green-Cedar.....	55.....	100
North Puget Sound.....	48.....	104
Olympic Peninsula.....	28.....	97

## Reservoir

Reservoir managers are reporting a positive outlook for this season. Reservoir storage in the Yakima Basin was 980,900 acre feet, 105% of June 1 normal and 150% of last year. Storage at other reservoirs included Roosevelt and Banks Lakes at 131% of average, and the Okanogan reservoirs at 132% of normal for June 1. The power generation reservoirs include the following: Coeur d'Alene Lake, 199,500 acre feet, or 71% of normal; Chelan Lake, 581,700 acre feet, 129% of average and 86% of capacity; and Ross Lake at 89% of average and 66% of capacity.

BASIN	PERCENT OF CAPACITY	PERCENT OF AVERAGE
Spokane.....	84.....	71
Colville-Pend Oreille.....	72.....	131
Okanogan-Methow.....	101.....	132
Wenatchee-Chelan.....	86.....	129
Yakima.....	92.....	105
North Puget Sound.....	68.....	91



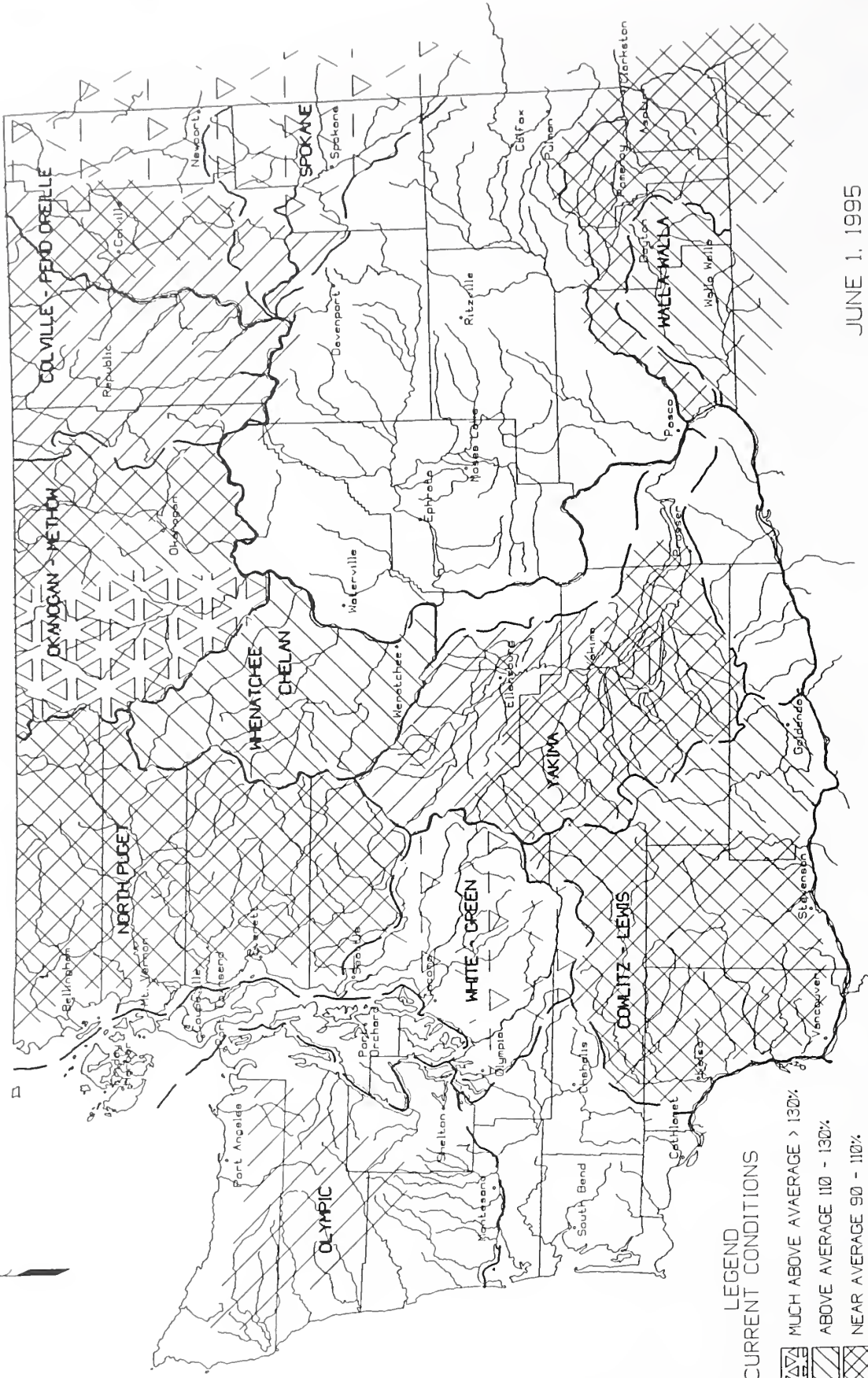
## Streamflow

There is no happy medium when it comes to forecasted streamflows for Washington. The good news is that previous water-starved areas like the Yakima and Okanogan River basins are expected to have adequate water supplies this season. The bad news is that power generation and municipal water supply streams in the Spokane, Pend Oreille and White-Green River basins are forecasted at below to much below average. Highs and lows in the state are 158% of average for the Methow River near Pateros and 58% of normal for the Green River can be expected. All down slightly compared to last month June forecasts for some Western Washington streams include: Rex River near Cedar Falls, 59%; South Fork Tolt, 91%; and the Dungeness River, 82%. Some Eastern Washington streams include Mill Creek at Walla Walla, 127%; the Wenatchee River at Plain, 112%; and the Colville River, 103%. May streamflows were near normal with a few exceptions. The Walla Walla near Milton Freewater had the highest May flows with 166% of average, and the Spokane at Long Lake with 63% of normal was the lowest in the state. Other streamflows were the following percentage of normal: the Cowlitz River, 90%; the Okanogan River, 125%; the Pend Oreille River, 72%; the Columbia at the Canadian border, 93%, the Skagit near Concrete, 104% and the Yakima River at Kiona, 146%.

### BASIN

PERCENT OF AVERAGE  
MOST PROBABLE FORECAST  
(50 PERCENT CHANCE OF EXCEEDANCE)

Spokane.....	68-73
Colville-Pend Oreille.....	58-112
Okanogan-Methow.....	95-158
Wenatchee-Chelan.....	105-121
Yakima.....	83-118
Walla Walla.....	90-127
Cowlitz-Lewis.....	96-118
White-Green-Cedar.....	58-91
North Puget Sound.....	93-113
Olympic Peninsula.....	82-83



LEGEND  
CURRENT CONDITIONS

- MUCH ABOVE AVERAGE > 130%
- ABOVE AVERAGE 110 - 130%
- NEAR AVERAGE 90 - 110%
- BELOW AVERAGE 70 - 90%
- MUCH BELOW AVERAGE < 70%
- NOT FORCASTED
- WATERSHED BOUNDARY

JUNE 1, 1995

# STREAMFLOW PROSPECTS WASHINGTON

U.S. DEPARTMENT OF AGRICULTURE  
NATURAL RESOURCES CONSERVATION SERVICE

NTS



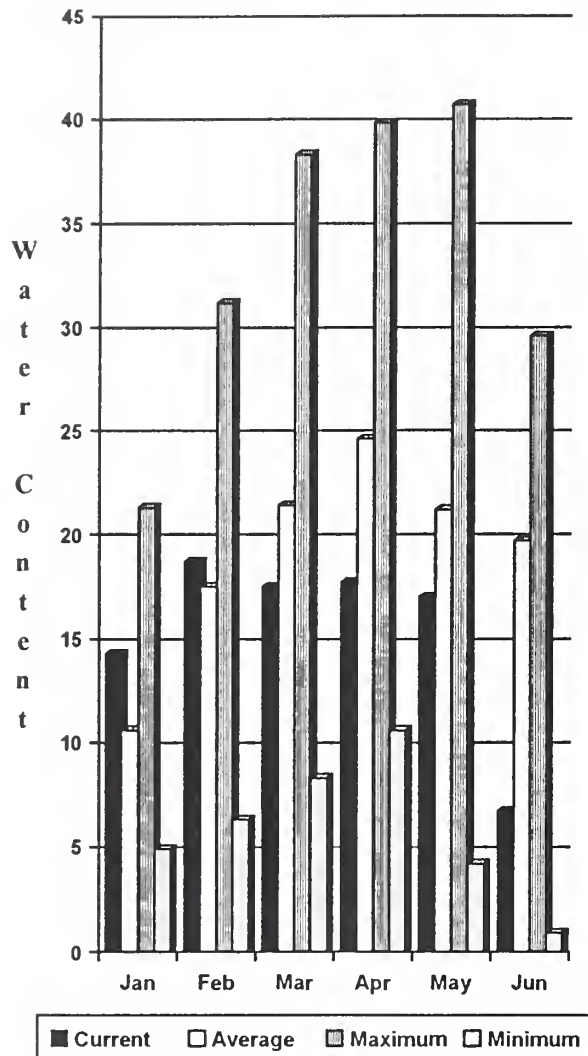
# BASIN SUMMARY OF SNOW COURSE DATA

## JUNE 1995

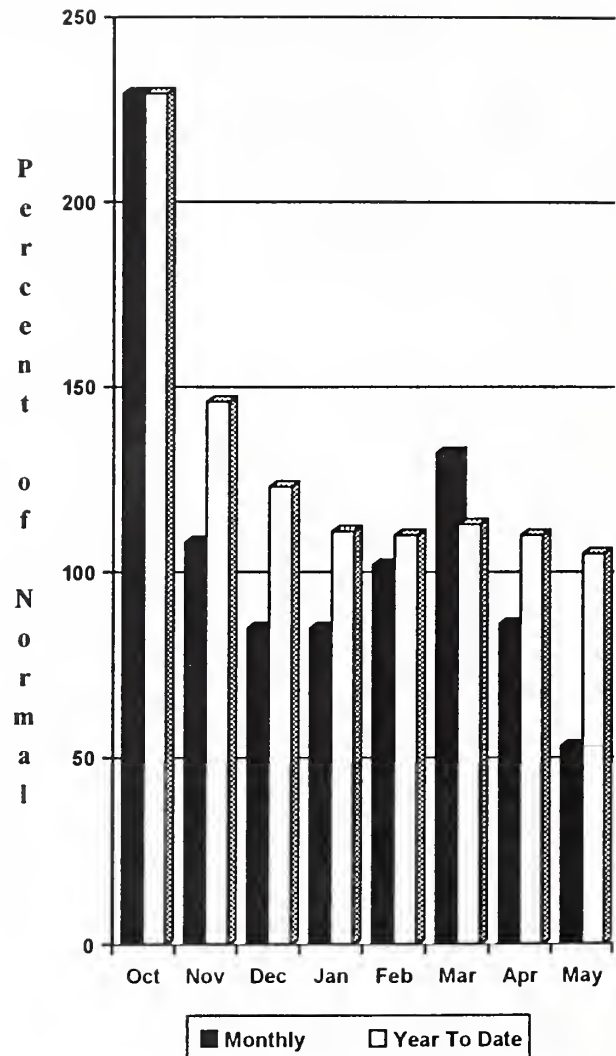
SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90	SNOW COURSE	ELEVATION	DATE	SNOW DEPTH	WATER CONTENT	LAST YEAR	AVERAGE 1961-90		
PEND OREILLE RIVER							AHTANUM CREEK								
BUNCHGRASS MDWP	5000	6/01/95	---	4.6	.0	15.4	GREEN LAKE	PILLOW	6000	6/01/95	---	11.5S	.0	3.8	
HOODOO BASIN	6050	6/01/95	---	24.6E	8.8	32.9	LOST HORSE	PILLOW	5000	6/01/95	---	.0S	.0	.0	
HOODOO CREEK	5900	6/01/95	---	16.9E	3.6	31.9	MILL CREEK								
LOOKOUT	PILLOW	5140	6/01/95	---	.0	10.0	HIGH RIDGE	PILLOW	4980	6/01/95	---	.0S	.0	.6	
KETTLE RIVER							TOUCHET #2	PILLOW	5530	6/01/95	---	.0	.0	--	
BIG WHITE MTN	CAN.	5510	5/29/95	12	5.8	.6	8.9	LEWIS - COWLITZ RIVERS							
FARRON	CAN.	4000	5/30/95	0	.0	.0	.3	JUNE LAKE	PILLOW	3200	6/01/95	---	.0S	.0	.0
COLVILLE RIVER	NO REPORT							LONE PINE	PILLOW	3800	6/01/95	---	9.3S	5.1	9.4
OMAK LAKE, TWIN LAKES								PARADISE PARK	PILLOW	5500	6/01/95	---	61.7S	43.6	48.1
MOSES MTN	PILLOW	4800	6/01/95	---	.0S	.0	.0	PIGTAIL PEAK	PILLOW	5900	6/01/95	---	35.3S	19.2	37.5
SPOKANE RIVER								POTATO HILL	PILLOW	4500	6/01/95	---	.0S	.0	1.1
LOST LAKE	(d)	6110	6/01/95	---	24.1E	.0	41.6	SHEEP CANYON	PILLOW	4050	6/01/95	---	.0S	.0	11.6
MOSQUITO RDG	PILLOW	5200	6/01/95	---	2.5	.0	16.0	SPENCER MDW	PILLOW	3400	6/01/95	---	.0S	.0	.0
SUNSET	PILLOW	5540	6/01/95	---	.6	.0	20.7	SPIRIT LAKE	PILLOW	3100	6/01/95	---	.0S	.0	.0
LOOKOUT	PILLOW	5140	6/01/95	---	.0	.0	10.0	SURPRISE LKS	PILLOW	4250	6/01/95	---	17.0S	4.0	14.5
NEWMAN LAKE								WHITE PASS ES	PILLOW	4500	6/01/95	---	1.2S	.0	4.6
QUARTZ PEAK	PILLOW	4700	6/01/95	---	.0	.0	.0	WHITE RIVER							
OKANOGAN RIVER								CORRAL PASS	PILLOW	6000	6/01/95	---	20.9S	12.5	19.6
ENDERBY	CAN.	6200	5/31/95	54	26.8	31.5	39.0	MORSE LAKE	PILLOW	5400	6/01/95	---	12.6S	8.7	21.4
ESPERON CK. UP	CAN.	5410	5/31/95	0	.0	--	5.1	GREEN RIVER							
ESPERON CK. MID	CAN.	4690	5/31/95	0	.0	--	.8	COUGAR MTN.	PILLOW	3200	6/01/95	---	.0S	.0	.0
FREEZEOUT CK. TRAIL		3500	5/30/95	0	.0	--	--	GRASS MOUNTAIN #2		2900	5/29/95	0	.0	.0	--
HARTS PASS		6500	5/30/95	57	33.9	16.0	--	LESTER CREEK		3100	5/29/95	0	.0	.0	--
HARTS PASS	PILLOW	6500	6/01/95	---	27.0S	6.0	25.3	LYNN LAKE		4000	5/29/95	0	.0	.0	--
ISINTOK LAKE	CAN.	5500	5/31/95	0	.0	--	1.2	SAWMILL RIDGE		4700	5/29/95	3	1.4	--	16.6
LOST HORSE MTN	CAN.	6300	5/29/95	4	1.4	--	4.0	STAMPEDE PASS	PILLOW	3860	6/01/95	---	9.0S	.0	15.0
MT. KOBAY	CAN.	5900	5/28/95	28	10.9	.0	5.0	TWIN CAMP		4100	5/29/95	0	.0	.0	--
SALMON MDWS	PILLOW	4500	6/01/95	---	.0S	.0	.0	CEDAR RIVER							
SILVER STAR MTN	CAN.	6000	5/28/95	43	21.7	12.2	16.9	MT. GARDNER	PILLOW	2860	6/01/95	---	.0S	.0	.0
SUMMERLAND RES	CAN.	4200	5/30/95	0	.0	--	.4	TINKHAM CREEK	PILLOW	3000	6/01/95	---	.0S	.0	.0
WHITE ROCKS MTN	CAN.	6000	5/31/95	8	3.7	.0	9.3	MEADOWS PASS	PILLOW	3240	6/01/95	---	.0S	.0	.0
METHOW RIVER								SNOQUALMIE RIVER							
HARTS PASS		6500	5/30/95	57	33.9	16.0	--	OLALLIE MDWS	PILLOW	3960	6/01/95	---	14.2S	6.0	30.0
HARTS PASS	PILLOW	6500	6/01/95	---	27.0S	6.0	25.3	SKYKOMISH RIVER							
SALMON MDWS	PILLOW	4500	6/01/95	---	.0S	.0	.0	STAMPEDE PASS	PILLOW	3860	6/01/95	---	9.0S	.0	15.0
CHELAN LAKE BASIN								STEVENS PASS	PILLOW	4070	6/01/95	---	.0S	.0	5.7
LYMAN LAKE	PILLOW	5900	6/01/95	---	54.1S	17.5	43.3	SKAGIT RIVER							
MINERS RIDGE	PILLOW	6200	6/01/95	---	31.1S	17.0	38.1	BEAVER CREEK TRAIL		2200	5/30/95	0	.0	.0	--
PARK CK RIDGE	PILLOW	4600	6/01/95	---	6.2S	.0	5.2	BEAVER PASS		3680	5/30/95	20	10.7	.0	--
RAINY PASS		4780	5/31/95	39	2.0	3.0	--	BROWN TOP	AM	6000	5/30/95	83	43.6	21.6	--
RAINY PASS	PILLOW	4780	6/01/95	---	25.8S	.5	20.4	DEVILS PARK		5900	5/30/95	62	33.6	13.6	31.8
ENTIAT RIVER								FREEZEOUT CK. TRAIL		3500	5/30/95	0	.0	.0	--
POPE RIDGE	PILLOW	3540	6/01/95	---	.0S	.0	.0	HARTS PASS		6500	5/30/95	57	33.9	16.0	--
WENATCHEE RIVER								HARTS PASS	PILLOW	6500	6/01/95	---	27.0S	6.0	25.3
BLEWETT PASS#2	PILLOW	4270	6/01/95	---	.0S	.0	.0	LYMAN LAKE	PILLOW	5900	6/01/95	---	54.1S	17.5	43.3
FISH LAKE	PILLOW	3370	6/01/95	---	.0S	.0	5.0	MEADOWS CABIN		1900	5/31/95	0	.0	.0	--
LYMAN LAKE	PILLOW	5900	6/01/95	---	54.1S	17.5	43.3	NEW HOZOMEEN LAKE		2800	5/30/95	0	.0	.0	--
STEVENS PASS	PILLOW	4070	6/01/95	---	.0S	.0	5.7	RAINY PASS		4780	5/31/95	39	2.0	3.0	--
TROUGH #2	PILLOW	5310	6/01/95	---	.0S	.0	6.0	RAINY PASS	PILLOW	4780	6/01/95	---	25.8S	.5	20.4
UPPER WHEELER	PILLOW	4400	6/01/95	---	.0S	.0	.0	THUNDER BASIN		4200	5/31/95	8	3.8	.8	--
SQUILCHUCK CREEK	NO REPORT							THUNDER BASIN	PILLOW	4200	6/01/95	---	4.99	.0	6.0
STEMILT CREEK								BAKER RIVER							
UPPER WHEELER	PILLOW	4400	6/01/95	---	.0S	.0	.0	DOCK BUTTE	AM	3800	6/01/95	34	19.0	24.4	52.5
COLOCKUM CREEK								JASPER PASS	AM	5400	6/01/95	120	68.0	--	81.1
TROUGH #2	PILLOW	5310	6/01/95	---	.0S	.0	6.0	MARTEN LAKE	AM	3600	6/01/95	66	36.0	--	65.5
YAKIMA RIVER								MT. BLUM	AM	5800	6/01/95	96	52.0	34.0	68.1
BLEWETT PASS#2	PILLOW	4270	6/01/95	---	.0S	.0	.0	ROCKY CREEK	AM	2100	6/01/95	0	.0	--	1.8
BUMPING RIDGE	PILLOW	4600	6/01/95	---	.0S	.0	6.3	SCHREIBERS MDW	AM	3400	6/01/95	24	13.0	18.6	41.4
CORRAL PASS	PILLOW	6000	6/01/95	---	20.9S	12.5	19.6	SF THUNDER CK	AM	2200	6/01/95	0	.0	--	--
FISH LAKE	PILLOW	3370	6/01/95	---	.0S	.0	5.0	WATSON LAKES	AM	4500	6/01/95	34	19.0	25.8	57.4
GREEN LAKE	PILLOW	6000	6/01/95	---	11.5S	.0	3.8	ELWAHA RIVER	NO REPORT						
GROUSE CAMP	PILLOW	5380	6/01/95	---	.0S	.0	.0	MORSE CREEK	NO REPORT						
LOST HORSE	PILLOW	5000	6/01/95	---	.0S	.0	.0	DUNGENESS RIVER	NO REPORT						
MORSE LAKE	PILLOW	5400	6/01/95	---	12.6S	8.7	21.4	QUILCENE RIVER							
OLALLIE MDWS	PILLOW	3960	6/01/95	---	14.2S	6.0	30.0	MOUNT CRAG	PILLOW	4050	6/01/95	---	10.7S	.0	.0
SASSE RIDGE	PILLOW	4200	6/01/95	---	.4S	.0	1.3	WYNOOCHEE RIVER							
STAMPEDE PASS	PILLOW	3860	6/01/95	---	9.0S	.0	15.0	(d) Denotes discontinued site.							
WHITE PASS ES	PILLOW	4500	6/01/95	---	1.2S	.0	4.6								

# Spokane River Basin

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

The June 1 forecasts for summer runoff on the Spokane River at Long Lake are 73% of normal, no significant change from last month. The forecast is based on a basin snowpack that is 34% of average and precipitation that is 105% of normal for the water year. Precipitation for May was only 53% of average. Streamflow on the Spokane River was 63% of average for May. June 1 storage in Coeur d'Alene Lake was 199,500 acre feet, 71% of normal, and 84% of capacity. Temperatures in the basin were 2.6 degrees above normal during May.

For more information contact your local Natural Resources Conservation Service office.

# SPOKANE RIVER BASIN

## Streamflow Forecasts - June 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						
		90%		70%		Chance Of Exceeding *		30-Yr Avg. (1000AF)
		(1000AF)	(1000AF)	(1000AF)	(1000AF)	50% (Most Probable) (% AVG.)	30% (1000AF)	10% (1000AF)
SPOKANE near Post Falls (2)	JUN-SEP	315	450	540	68	630	765	794
	JUN-JUL	235	350	430	62	510	625	697
SPOKANE at Long Lake	JUN-JUL	370	490	570	66	650	770	861
	JUN-SEP	560	700	793	73	890	1030	1083

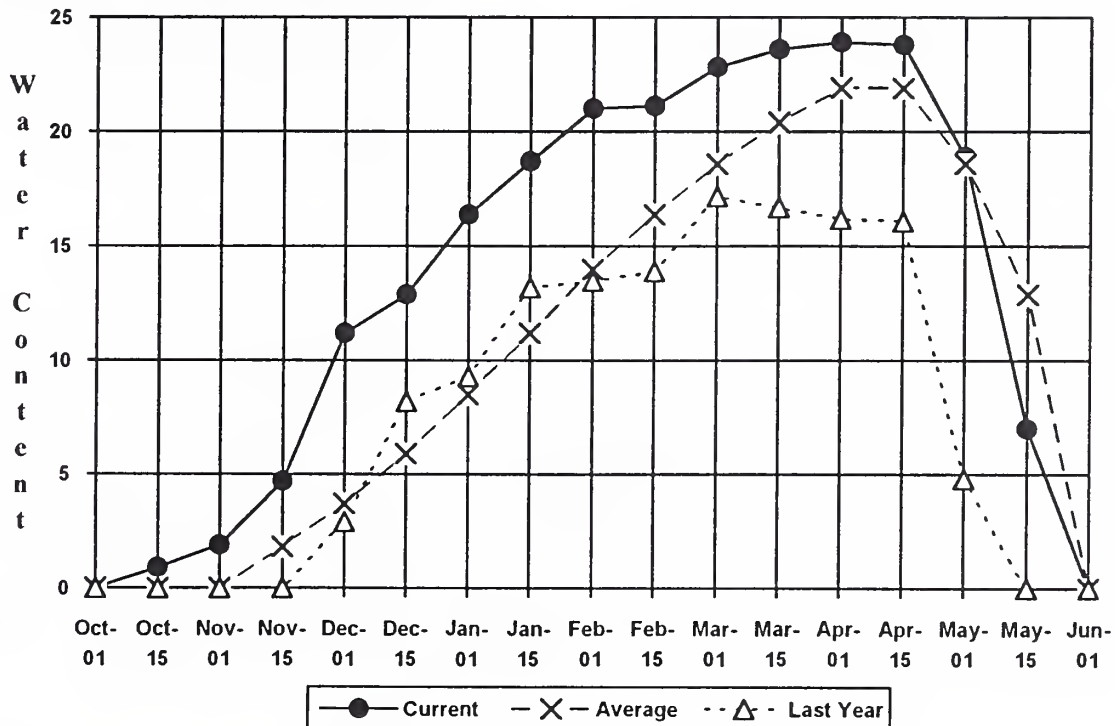
SPOKANE RIVER BASIN Reservoir Storage (1000 AF) - End of May					SPOKANE RIVER BASIN Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
COEUR D'ALENE	238.5	199.5	230.5	280.5	Spokane River	8	0	34

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

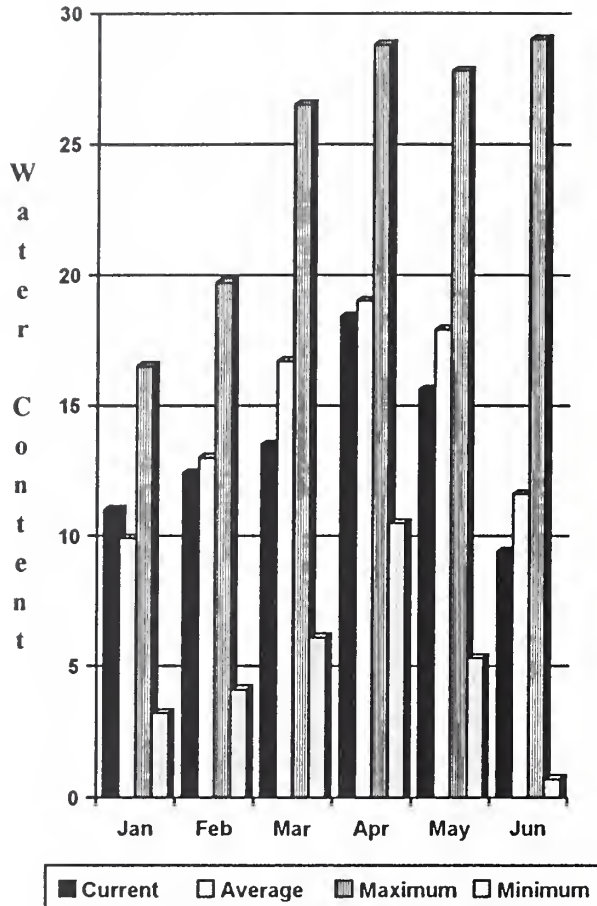
## Quartz Peak SNOTEL Elevation 4700 ft.



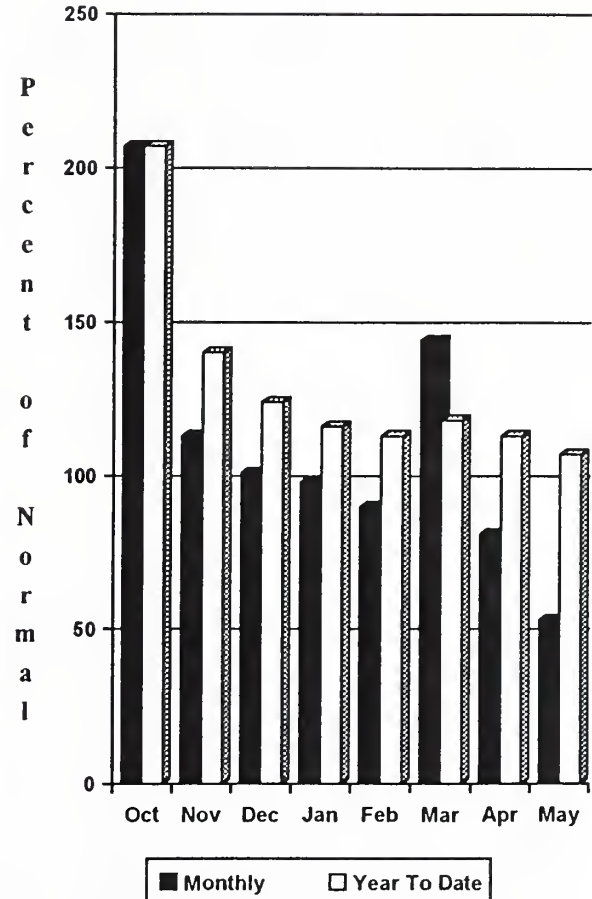


# Colville - Pend Oreille River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

The forecast for the Kettle River streamflow is for 112% of normal, the Pend Oreille below Box Canyon, 60%. The forecast for the Priest River near the town of Priest River is 58% of normal for the summer runoff period. Forecasts for points on the Columbia River at Birchbank are 89%, and at Grand Coulee Dam, 83% of average. May streamflow was 72% of normal on the Pend Oreille River, 93% on the Columbia at the International Boundary, and 108% on the Kettle River. June 1 snow cover was 81% of normal for the Pend Oreille Basin, and 63% of normal on the Kettle River. Snowpack at Bunchgrass Meadows SNOTEL site contained 4.6 inches of water, compared to the average June 1 reading of 15.4 inches. Precipitation during May was 53% of average, bringing the water year-to-date to 107% of normal. Temperatures were slightly 3.5 degrees above normal for May.

For more information contact your local Natural Resources Conservation Service office.

# COLVILLE - PEND OREILLE RIVER BASINS

## Streamflow Forecasts - June 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
PEND OREILLE Lake Inflow (1,2)	JUN-JUL	2540	3660	4170	65	4680	5800	6449	
	JUN-SEP	3180	4430	4990	65	5550	6800	7669	
PRIEST nr Priest River (1,2)	JUN-JUL	20	125	173	58	220	325	298	
	JUN-SEP	52	157	205	58	255	360	351	
PEND OREILLE bl Box Canyon (1,2)	JUN-JUL	1480	3160	3920	60	4680	6360	6543	
	JUN-SEP	2020	3870	4710	61	5550	7400	7754	
CHAMOKANE CK nr Long Lake	MAY-AUG	5.5	8.3	10.3	110	12.3	15.1	9.4	
	JUL-AUG	3.2	3.5	3.6	109	3.7	4.0	3.3	
COLVILLE at Kettle Falls	JUN-SEP	29	37	42	103	48	55	41	
	JUN-JUL	20	26	31	102	35	41	30	
KETTLE near Laurier	JUN-SEP	750	870	950	112	1030	1150	851	
	JUN-JUL	690	785	850	112	915	1010	758	
COLUMBIA at Birchbank (1,2)	JUN-JUL	17400	19500	20500	89	21500	23600	22910	
	JUN-SEP	24300	27100	28300	90	29500	32300	31580	
COLUMBIA at Grand Coulee Dm (1,2)	JUN-SEP	29700	33600	35300	85	37000	40900	41706	
	JUN-JUL	21500	24700	26100	83	27500	30700	31400	

### COLVILLE - PEND OREILLE RIVER BASINS Reservoir Storage (1000 AF) - End of May

### COLVILLE - PEND OREILLE RIVER BASINS Watershed Snowpack Analysis - June 1, 1995

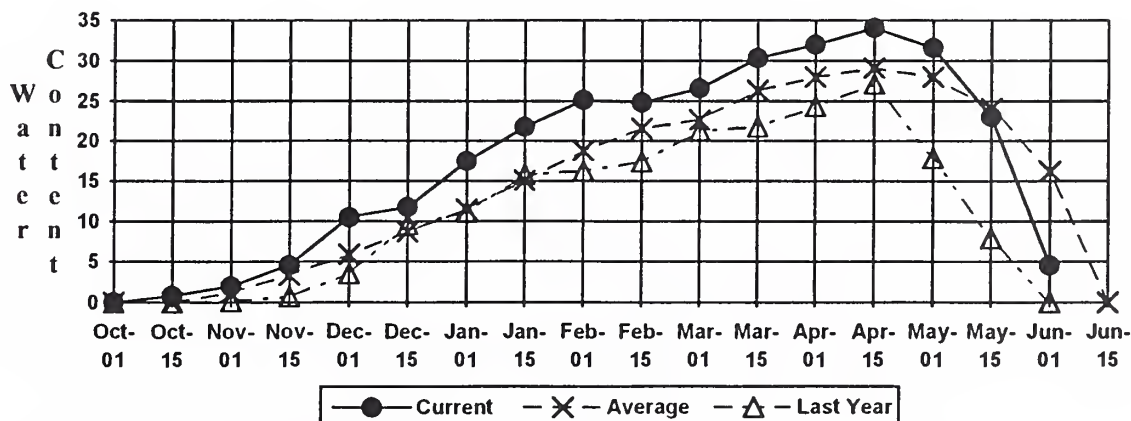
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
ROOSEVELT	5232.0	3608.3	4532.3	2851.0	Colville River	0	0	0
BANKS	715.0	685.5	689.6	418.0	Pend Oreille River	41	428	83
					Kettle River	2	967	63

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

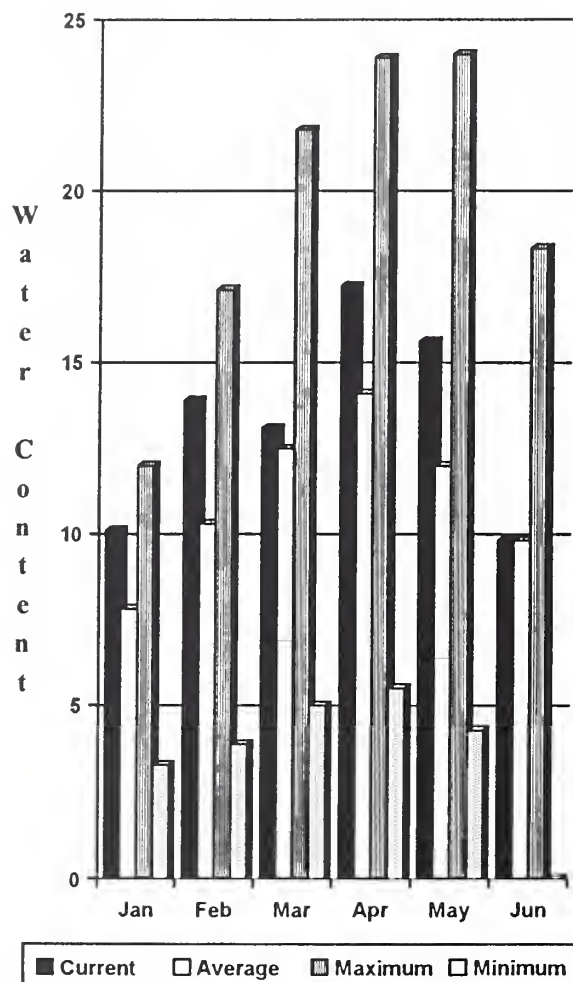
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

## Bunchgrass Meadow SNOTEL Elevation 5000 ft.

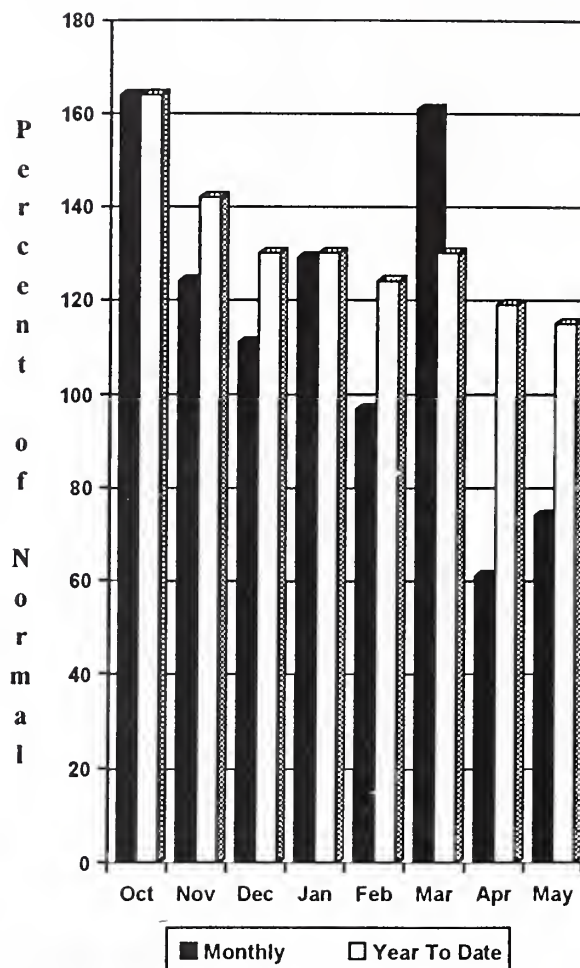


# Okanogan - Methow River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

Summer runoff forecast for the Okanogan River is 100% of normal; the Similkameen River, 95%, the Methow River, 158%; and Salmon Creek, 129% of normal. June 1 snow cover on the Okanogan was 94% of normal, and the Methow, 107%. May precipitation in the Okanogan-Methow was 74% of normal, with water year-to-date at 115% of average. May streamflow for the Methow River was 155% of normal, 125% for the Okanogan River, and 125% for the Similkameen. Snow water content at the Harts Pass SNOTEL, elevation 6500 feet, was 27 inches. Normal for this site is 25.3 inches. Temperatures were 3.5 degrees above normal for May. Storage in the Salmon Creek Reservoirs near Conconully was 23,800 acre feet, which is 101% of capacity and 132% of the June 1 average.

For more information contact your local Natural Resources Conservation Service office.



# **OKANOGAN - METHOW RIVER BASINS** Streamflow Forecasts - June 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
SIMILKAMEEN nr Nighthawk (1)	JUN-SEP	740	755	810	95	810	810	850	
	JUN-JUL	640	655	710	94	710	710	755	
OKANOGAN RIVER nr Tonasket (1)	JUN-SEP	1000	950	1005	100	1010	1010	1005	
	JUN-JUL	805	800	835	98	835	835	848	
SALMON CREEK near Conconully	JUN-JUL	4.9	9.1	11.9	128	14.7	18.9	9.3	
	JUN-SEP	5.5	10.1	13.2	129	16.3	21	10.2	
METHOW RIVER near Pateros	JUN-SEP	760	830	878	158	925	995	555	
	JUN-JUL	670	730	773	159	815	875	486	
	JUN-JUN	460	510	545	152	580	630	359	

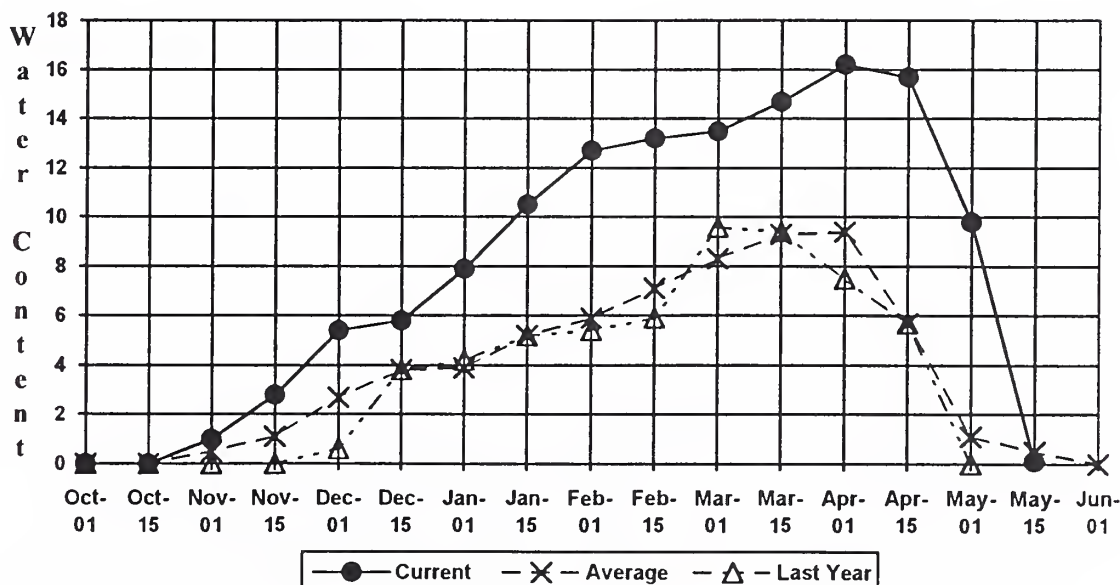
OKANOGAN - METHOW RIVER BASINS Reservoir Storage (1000 AF) - End of May					OKANOGAN - METHOW RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
SALMON LAKE		NO REPORT			Okanogan River	6	181	94
CONCONULLY RESERVOIR		NO REPORT			Methow River	2	450	107

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

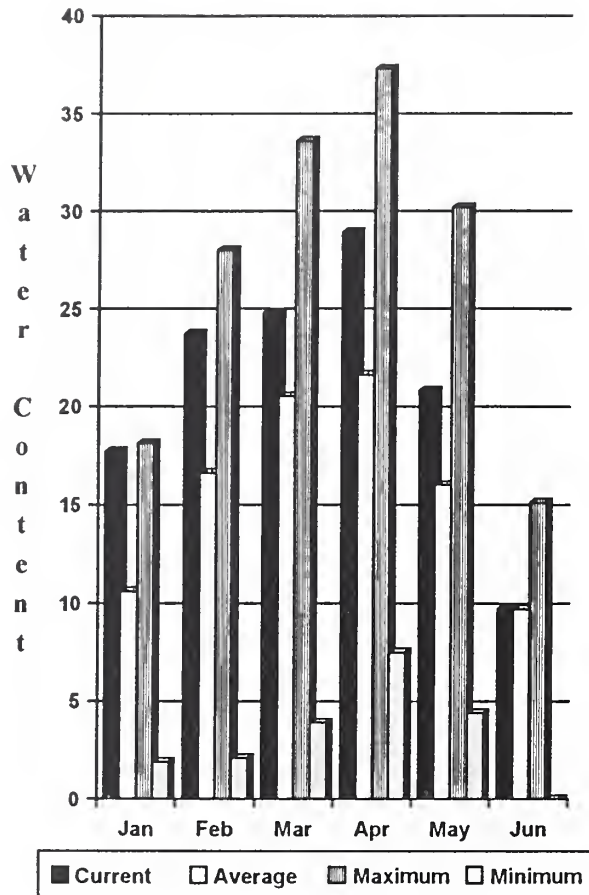
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

## **Salmon Meadows SNOTEL** Elevation 4500 ft.

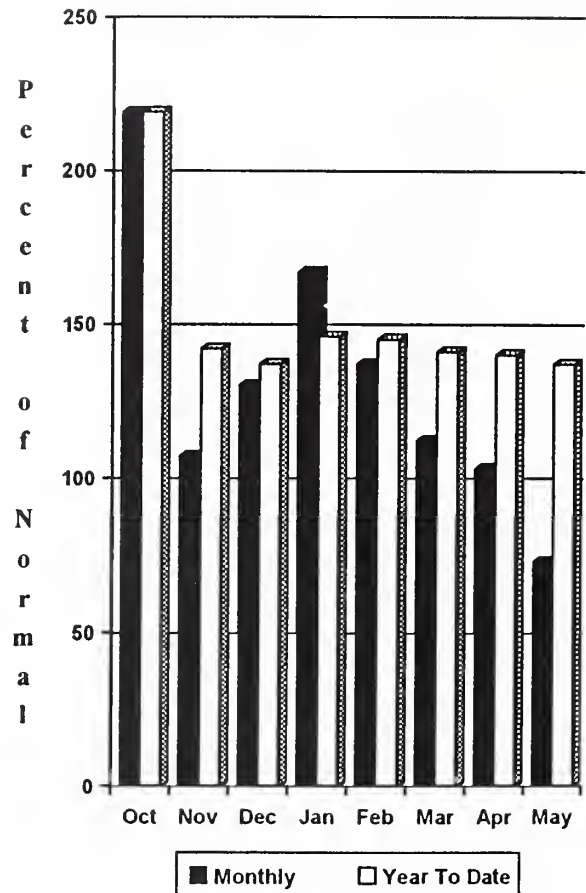


# Wenatchee - Chelan River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

Precipitation during May was 73% of normal in the Wenatchee - Chelan River Basin and 137% for the year-to-date. Runoff for the Entiat River is forecast to be 121% of normal for the summer. The June-September forecast for the Chelan River is 109%, the Wenatchee River 112% of normal, and 105% for the Stehekin. Icicle Creek is forecast to be 111% of normal this summer. Streamflow for May on the Chelan River was 150% of average, and on the Wenatchee River it was 137% of normal. June 1 snowpack in the Wenatchee Basin was 90% of average, which is 309% of last year. The Chelan Basin was 110% of average, and Stemilt Creek reports no snow, which is normal. Pope Ridge SNOTEL on the Entiat River melted out on May 19th, about normal for this site. Reservoir storage in Lake Chelan was 581,700 acre feet, or 129% of June 1 average and 86% of capacity. Lyman Lake SNOTEL had the most snow-water in the basin with 54.1 inches of water. This site would normally have 43.3 inches.

For more information contact your local Natural Resources Conservation Service office.

# WENATCHEE - CHELAN RIVER BASINS

## Streamflow Forecasts - June 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)	
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
CHELAN RIVER near Chelan	JUN-SEP	645	740	805	109	870	965	738	
	JUN-SEP	645	740	805	109	870	965	738	
	JUN-JUN	315	385	430	110	475	545	390	
STEHEKIN near STEHEKIN	JUN-SEP	465	530	573	105	615	680	548	
	JUN-JUL	345	400	434	103	470	520	422	
	JUN-JUN	182	225	251	97	280	320	259	
ENTLAT RIVER near Ardenvoir	JUN-SEP	149	164	175	121	186	200	145	
	JUN-JUL	124	140	150	120	160	176	125	
	JUN-JUN	83	96	105	120	114	128	87	
WENATCHEE at Plain	JUN-JUL	565	635	678	113	725	790	600	
	JUN-SEP	665	745	804	112	860	945	718	
	JUN-JUN	355	405	440	112	475	525	391	
STEMILT nr Wenatchee (miners in)	MAY-SEP	111	138	156	113	174	200	138	
ICICLE CREEK nr Leavenworth	APR-SEP	290	360	410	111	460	530	370	
	APR-JUL	265	330	377	111	420	490	340	
	APR-JUN	210	265	300	111	335	390	270	
COLUMBIA R. bl Rock Island Dam (2)	JUN-SEP			39300	87			45171	
	JUN-JUL			29300	85			34423	

WENATCHEE - CHELAN RIVER BASINS Reservoir Storage (1000 AF) - End of May					WENATCHEE - CHELAN RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
CHELAN LAKE	676.1	581.7	492.7	450.6	Chelan Lake Basin	4	335	110
					Entiat River	1	0	0
					Wenatchee River	6	309	90
					Squilchuck Creek	0	0	0
					Stemilt Creek	1	0	0
					Colockum Creek	1	0	0

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

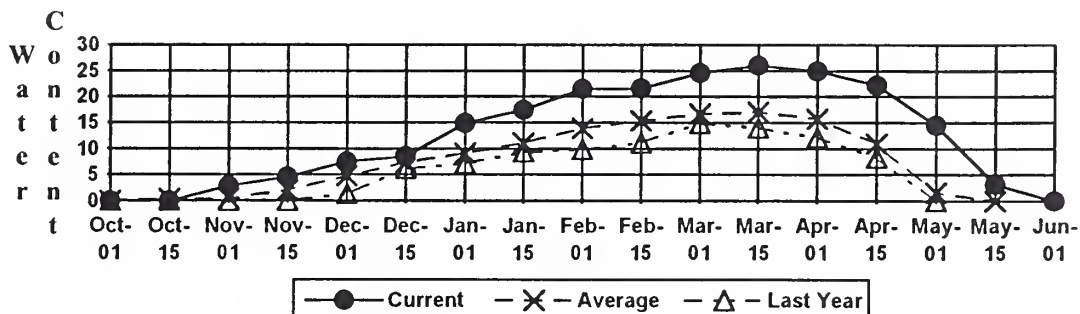
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Pope Ridge SNOTEL

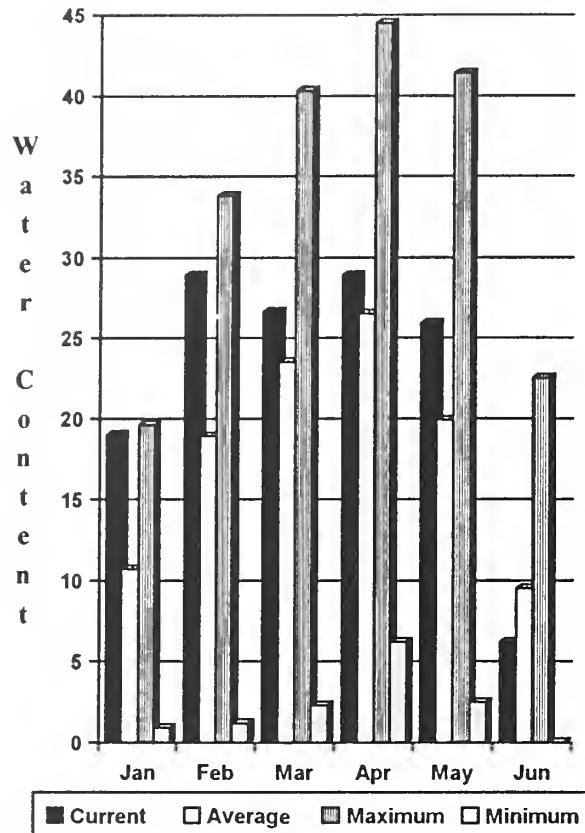
Elevation 3540 ft.



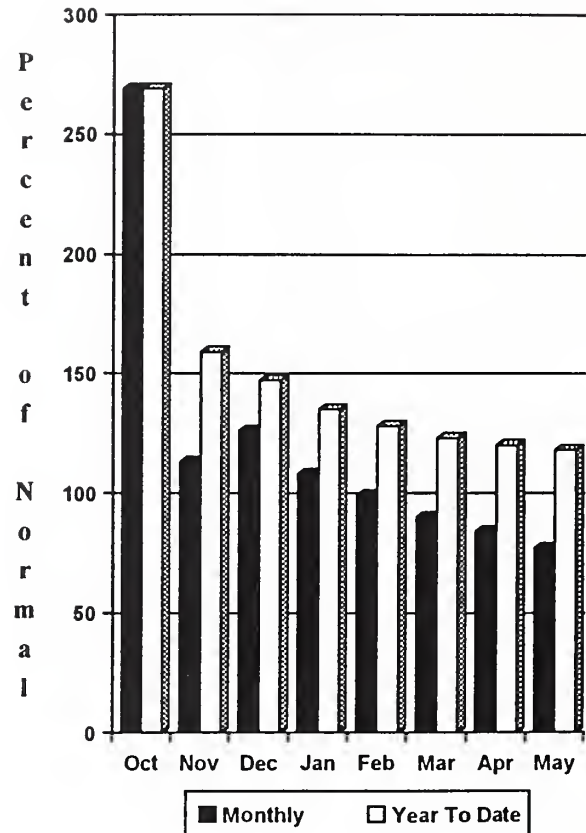


# Yakima River Basin

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

June 1 reservoir storage for the five major reservoirs was 980,900 acre feet, 105% of average and 92% of capacity. June 1 summer streamflow forecasts are for near normal in the Yakima Basin. Forecasts for the Yakima River at Cle Elum are for 88% of normal. Naches River, 103%; the Yakima River at Parker, 96%; Ahtanum Creek, 100%, and the Tieton River, 110%. The Klickitat River near Glenwood is forecast for 118% of normal flow this summer. May streamflows for the Yakima River at Parker are 119% of normal, 119% for the Yakima near Cle Elum, and 125% for the Naches River. June 1 snowpack was 65% based upon 11 snow course and SNOTEL readings within the Yakima Basin. Green Lake SNOTEL in the Ahtanum Creek Basin showed 303% of normal snowpack. May precipitation was 77% of normal and 118% for the water year-to-date. Temperatures were 2 degrees above normal for May. Volume forecasts for the Yakima Basin are for natural flow. As such, they may differ from the U.S. Bureau of Reclamation's forecast for the total water supply available, which includes irrigation return flow.

For more information contact your local Natural Resources Conservation Service office.

# YAKIMA RIVER BASIN

## Streamflow Forecasts - June 1, 1995

Forecast Point	Forecast Period	<<----- Drier ----- Future Conditions ----- Wetter ----->>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *						
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
KEECHELUS LAKE INFLOW	JUN-JUL	29	38	44	86	50	60	51
	JUN-SEP	35	46	53	85	60	71	62
	JUN-JUN	20	27	31	86	36	42	36
KACHESS LAKE INFLOW	JUN-JUL	26	33	38	84	43	50	45
	JUN-SEP	29	37	43	83	49	57	52
	JUN-JUN	19.0	24	28	85	32	37	33
CLE ELUM LAKE INFLOW	JUN-JUL	144	168	185	92	200	225	201
	JUN-SEP	174	205	223	93	245	270	239
	JUN-JUN	94	115	129	94	143	164	137
YAKIMA at Cle Elum	JUN-JUN	158	193	216	86	240	275	251
	JUN-JUL	230	280	314	87	350	400	361
	JUN-SEP	295	350	393	88	435	490	444
BUMPING LAKE INFLOW	JUN-SEP	61	74	82	107	91	104	77
	JUN-JUL	48	60	68	104	76	87	65
	JUN-JUN	32	42	48	108	55	64	45
AMERICAN RIVER near Nile	JUN-SEP	59	66	71	109	76	83	65
	JUN-JUL	50	57	62	111	67	74	56
	JUN-JUN	34	39	43	110	47	52	39
RIMROCK LAKE INFLOW	JUN-SEP	132	148	158	110	169	184	143
	JUN-JUL	99	110	118	112	126	137	105
	JUN-JUN	60	68	74	110	80	88	67
NACHES near Naches	JUN-SEP	340	400	437	103	475	535	424
	JUN-JUL	280	325	359	103	390	440	347
	JUN-JUN	184	225	250	103	275	315	243
AHTANUM CREEK nr Tampico (2)	MAY-SEP	30	35	38	100	41	47	38
	MAY-JUL	26	31	34	100	37	42	34
	MAY-JUN	22	25	28	100	31	34	28
YAKIMA near Parker	JUN-SEP	665	805	901	96	995	1140	938
	JUN-JUL	525	640	718	96	795	910	749
	JUN-SEP	665	805	901	96	995	1140	938
KLICKITAT near Glenwood	JUN-JUN	38	44	49	124	53	59	39
	JUN-SEP	66	76	83	118	89	99	70

YAKIMA RIVER BASIN					YAKIMA RIVER BASIN			
Reservoir Storage (1000 AF) - End of May					Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
KEECHELUS	157.8	142.4	122.9	144.0	Yakima River	11	257	65
KACHESS	239.0	197.1	99.3	218.0	Ahtanum Creek	1	0	303
CLE ELUM	436.9	426.3	277.3	378.0				
BUMPING LAKE	33.7	27.1	29.1	27.0				
RIMROCK	198.0	188.0	127.0	167.0				

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

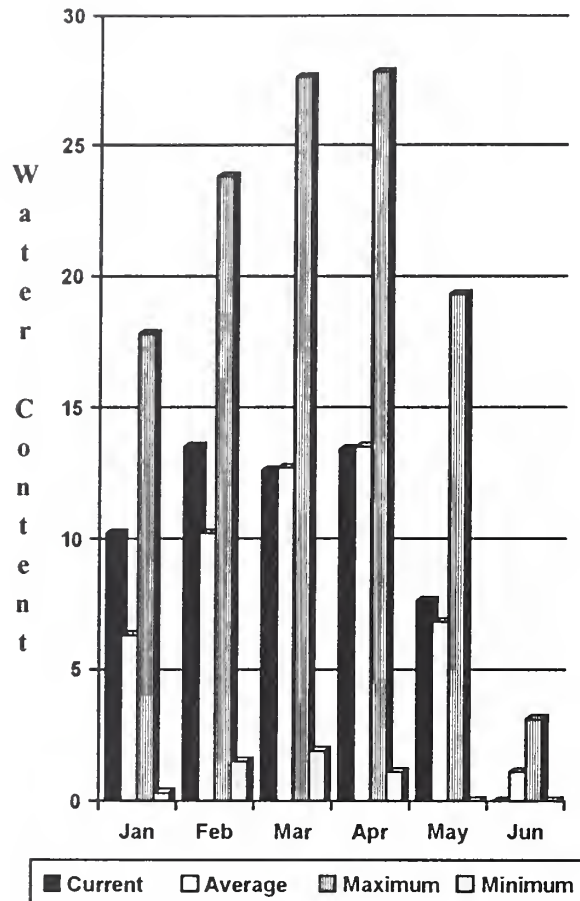
The average is computed for the 1961-1990 base period.

(1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.

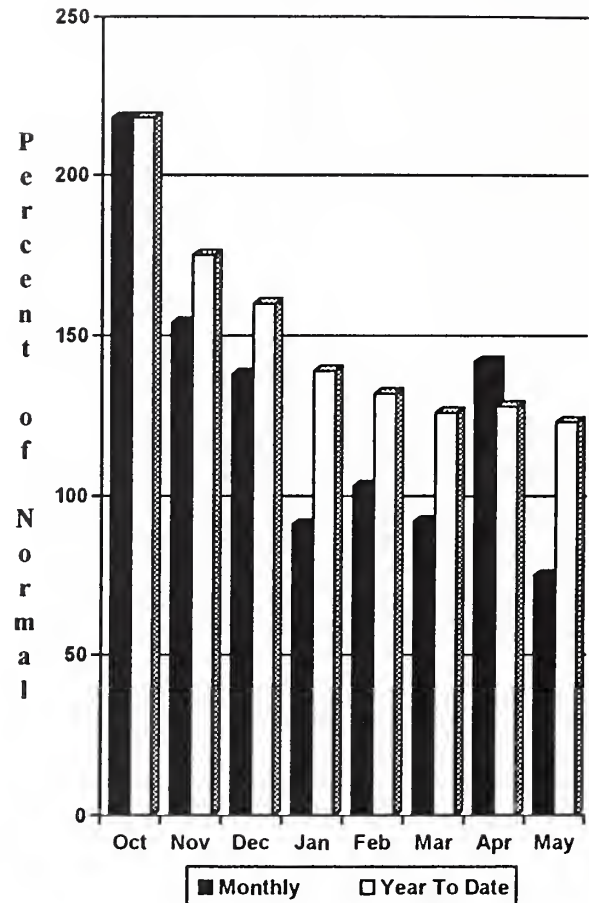
(2) - The value is natural flow - actual flow may be affected by upstream water management.

# Walla Walla River Basin

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

May precipitation was 75% of average, bringing the year-to-date precipitation to 123% of normal in the Walla Walla River Basin. By June 1 snowpack was melted out. The forecast is for 101% of average streamflow in the Walla Walla River for the coming summer, 90% for the Grande Ronde at Troy, and 127% for Mill Creek. May streamflow was 166% of normal for the Walla Walla River, 99% for the Snake River, and 143% on the Grande Ronde River near Troy. Temperatures were near normal for May.

For more information contact your local Natural Resources Conservation Service office.



# **WALLA WALLA RIVER BASIN** **Streamflow Forecasts - June 1, 1995**

		<<===== Drier ===== Future Conditions ===== Wetter =====>>							
Forecast Point	Forecast Period	Chance Of Exceeding *							30-Yr Avg (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)		
GRANDE RONDE at Troy (1)	JUN-JUL	290	380	420	90	460	550	466	
	JUN-SEP	350	455	505	90	555	665	564	
SNAKE blw Lower Granite Dam (1,2)	JUN-JUL	7170	8280	8790	91	9300	10400	9678	
	JUN-SEP	9350	10800	11400	92	12000	13500	12390	
MILL CREEK at Walla Walla	MAY-SEP	6.3	8.2	9.5	127	10.8	12.7	7.5	
	MAY-JUL	6.1	8.0	9.3	127	10.6	12.5	7.3	
	MAY-JUN	6.0	7.8	9.0	127	10.2	12.0	7.1	
SF WALLA WALLA nr Milton Freewater	MAY-JUL	32	35	37	101	40	43	37	
COLUMBIA R. at The Dalles (2)	JUN-SEP	38300	45200	49800	83	54400	61300	59652	
	JUN-JUL	27100	32800	36700	81	40600	46300	45431	

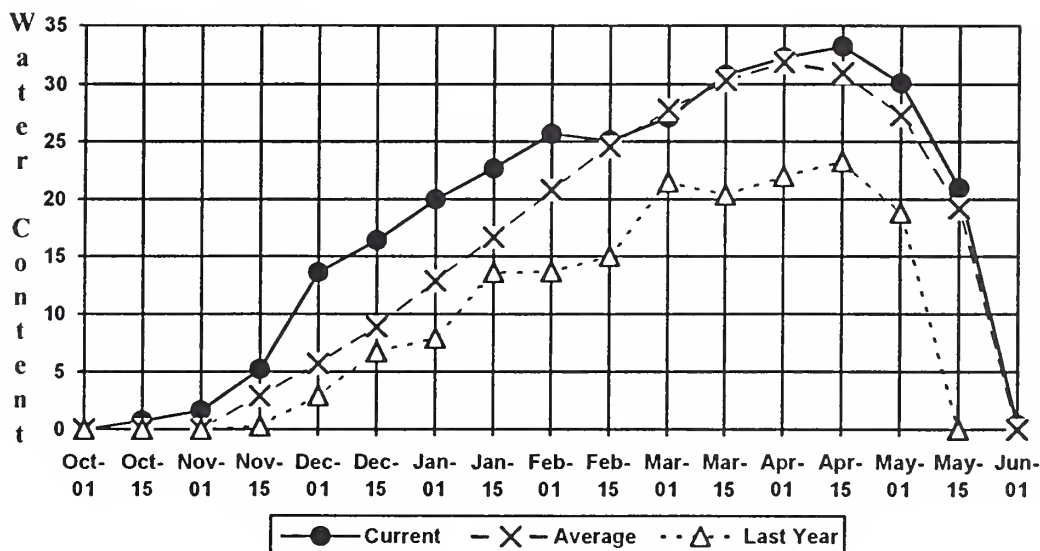
WALLA WALLA RIVER BASIN Reservoir Storage (1000 AF) - End of May					WALLA WALLA RIVER BASIN Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Mill Creek	1	0	0

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

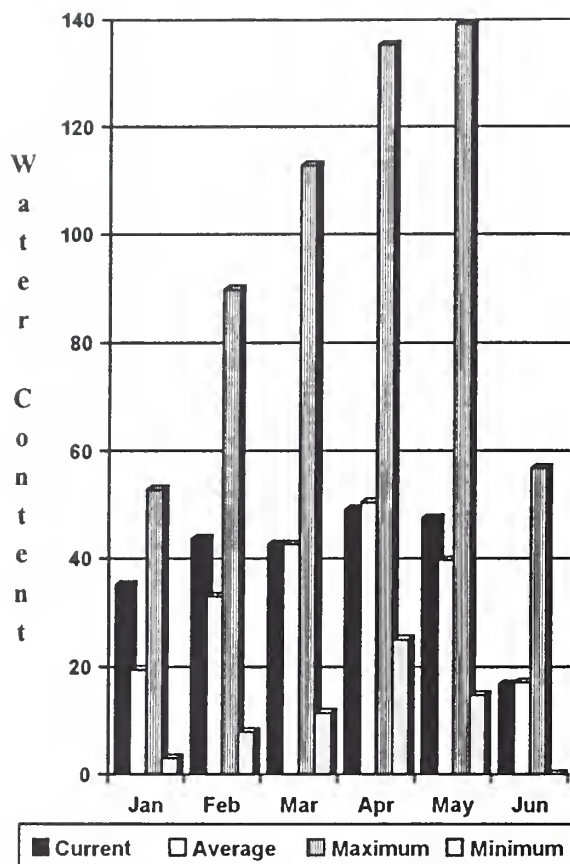
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Touchet #2 SNOTEL Elevation 5530 ft.

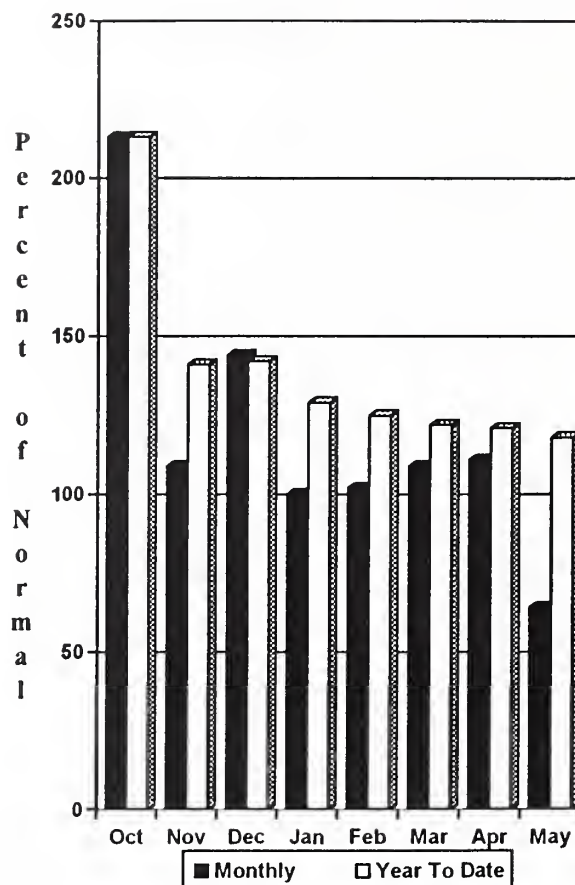


# Cowlitz - Lewis River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

The Lewis River is forecast for 105% of normal flows this summer. The Cowlitz River is forecast for 96% of normal runoff. May streamflow on the Cowlitz River was 90% of average, and 79% on the Lewis River. May precipitation was 64% of normal, bringing the precipitation down slightly to 118% of average for the water year. June 1 snow cover for the Cowlitz River Basin was 95% and the Lewis River Basin had 110% of average. The Paradise Park SNOTEL recorded the most water content for the basin with 61.7 inches of water. Normal June 1 water content is 48.1 inches. Temperatures were 3.5 degrees above normal for May.

For more information contact your local Natural Resources Conservation Service office.

# COWLITZ - LEWIS RIVER BASINS

## Streamflow Forecasts - June 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	% AVG.)	30% (1000AF)	10% (1000AF)	
LEWIS RIVER at Ariel (2)	MAY-SEP	680	805	890	105	975	1100	848
	MAY-JUL	555	660	730	105	800	905	696
	MAY-JUN	465	550	610	106	670	755	578
COWLITZ R. b1 Mayfield Dam (2)	JUN-SEP	865	930	945	96	945	945	982
	JUN-JUL	54	645	710	96	710	710	743
COWLITZ R. at Castle Rock (2)	JUN-SEP	1140	1140	1140	88	1140	1140	1298
	JUN-JUL	10.0	805	840	88	840	840	956
KLICKITAT near Glenwood	JUN-JUN	38	44	49	124	53	59	39
	JUN-SEP	66	76	83	118	89	99	70

COWLITZ - LEWIS RIVER BASINS Reservoir Storage (1000 AF) - End of May					COWLITZ - LEWIS RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Cowlitz River	6	156	95
					Lewis River	4	289	110

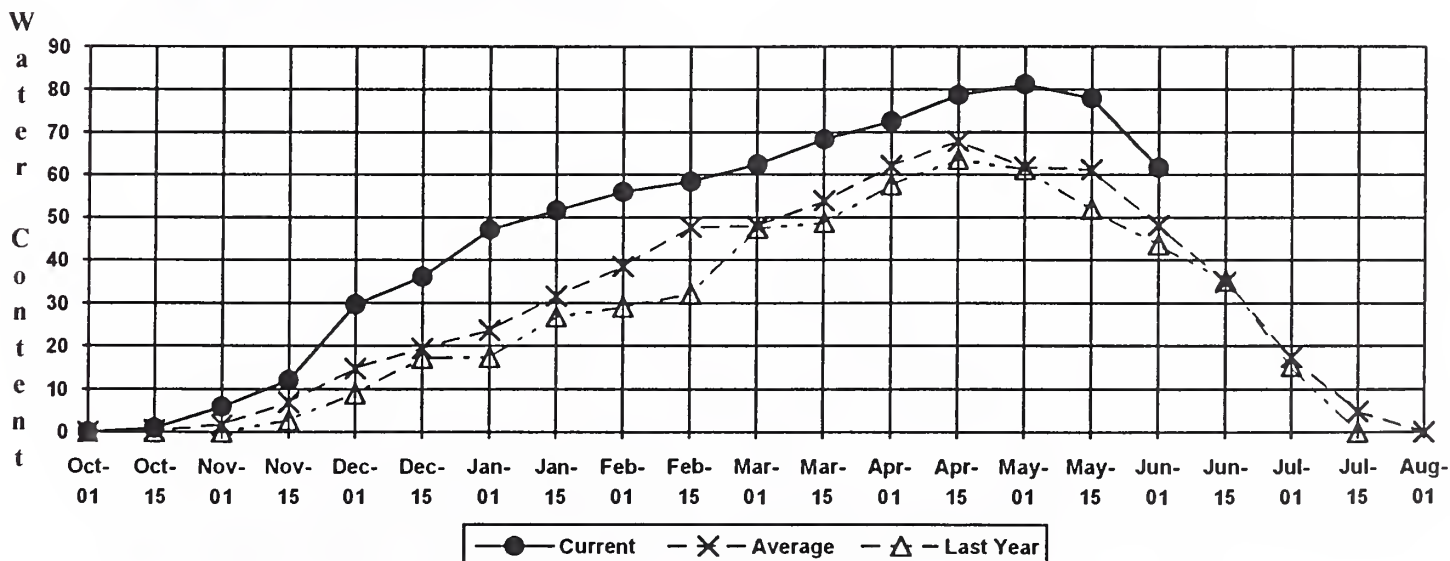
\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
 (2) - The value is natural flow - actual flow may be affected by upstream water management.

## Paradise SNOTEL

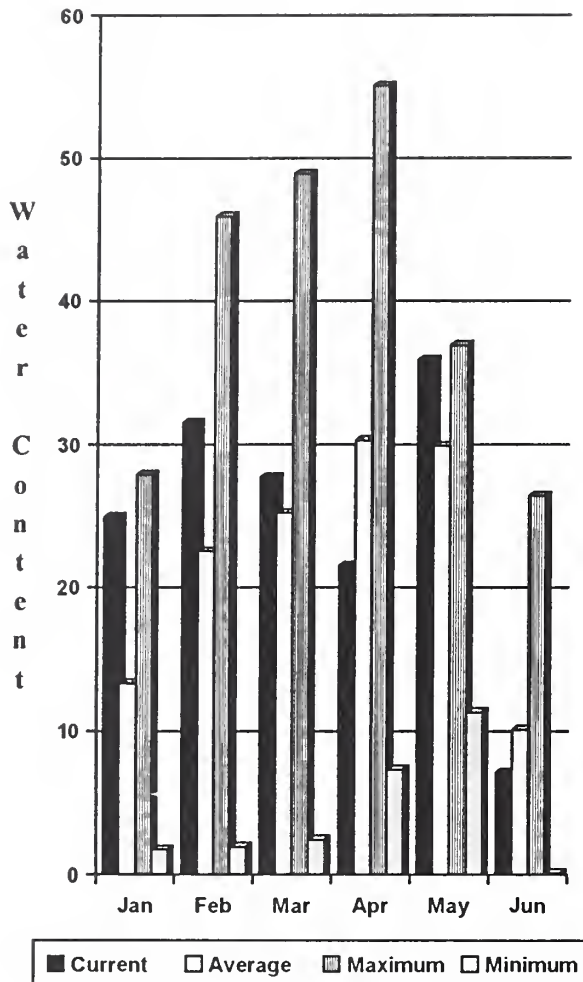
### Elevation 5120 ft.



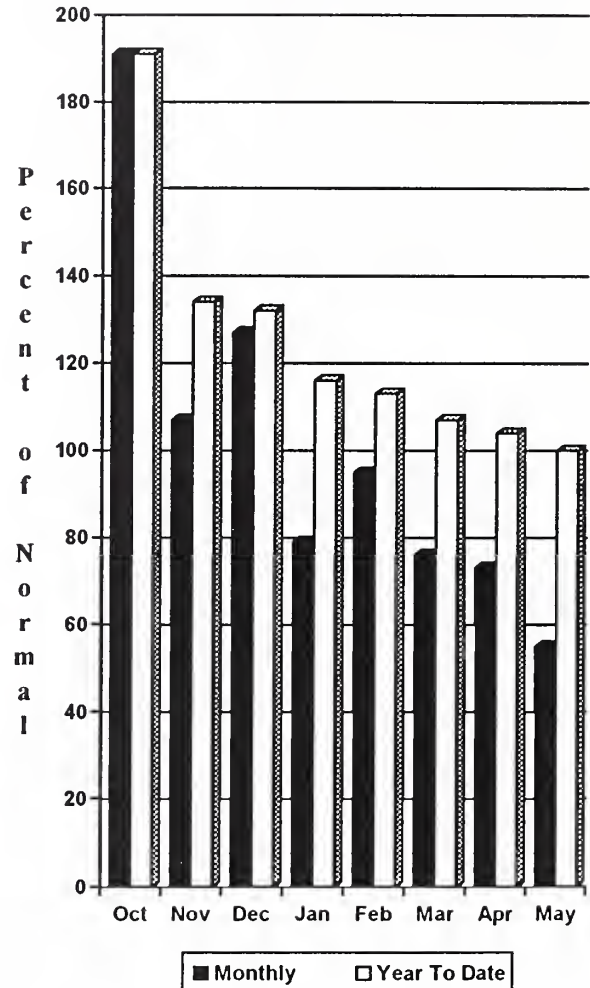


# White - Green - Cedar River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

Summer runoff is forecast to be 58% of normal for the Green River, 62% for the Cedar River near Cedar Falls, 59% for the Rex River, 91% for the South Fork of the Tolt River, and 60% for the Cedar River at Cedar Falls. June 1 snowpack was 82% of normal in the White River Basin and 60% in the Green River Basin. The Cedar River Basin was not reported this month. Water content on June 1 at the Morse Lake SNOTEL near Chinook Pass on the White River, at an elevation of 5400 feet, was 12.6 inches. This site has a June 1 average of 21.4 inches. May precipitation was 55% of normal, bringing the water year-to-date to 100% of average. The National Weather Service reported temperatures at Stampede Pass to be 5.7 degrees above average for May.

For more information contact your local Natural Resources Conservation Service office.

# **WHITE - GREEN - CEDAR RIVER BASINS** **Streamflow Forecasts - June 1, 1995**

		<<===== Drier =====		Future Conditions		===== Wetter =====>>		
Forecast Point	Forecast Period	=====		Chance Of Exceeding *		=====		30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
GREEN RIVER below Howard Hanson Dam	JUN-JUL	15.0	33	45	58	58	76	78
	JUN-SEP	27	48	62	58	75	96	106
	JUN-JUN	7.0	22	32	58	42	57	55
CEDAR RIVER near Cedar Falls	JUN-JUL	8.0	14.0	19.0	64	23	30	29
	JUN-SEP	10.0	18.0	23	62	28	36	37
	JUN-JUN	4.7	9.5	12.8	64	16.1	21	20
REX RIVER near Cedar Falls	JUN-JUL	0.4	3.4	5.4	59	7.4	10.4	9.2
	JUN-SEP	0.9	4.7	7.2	59	9.7	13.5	12.3
	JUN-JUN	0.4	2.6	4.0	59	5.4	7.6	6.8
CEDAR RIVER at Cedar Falls	JUN-JUL	5.0	9.0	13.0	60	16.0	21	21
	JUN-SEP	8.0	11.0	13.0	60	15.0	18.0	22
	JUN-JUN	3.2	8.2	11.6	60	15.0	20	19.4
SOUTH FORK TOLT near Index	JUN-JUL	3.9	4.9	5.6	89	6.3	7.3	6.3
	JUN-SEP	6.3	7.4	8.1	91	8.8	9.9	8.9
	JUN-JUN	2.4	3.2	3.8	90	4.4	5.2	4.2

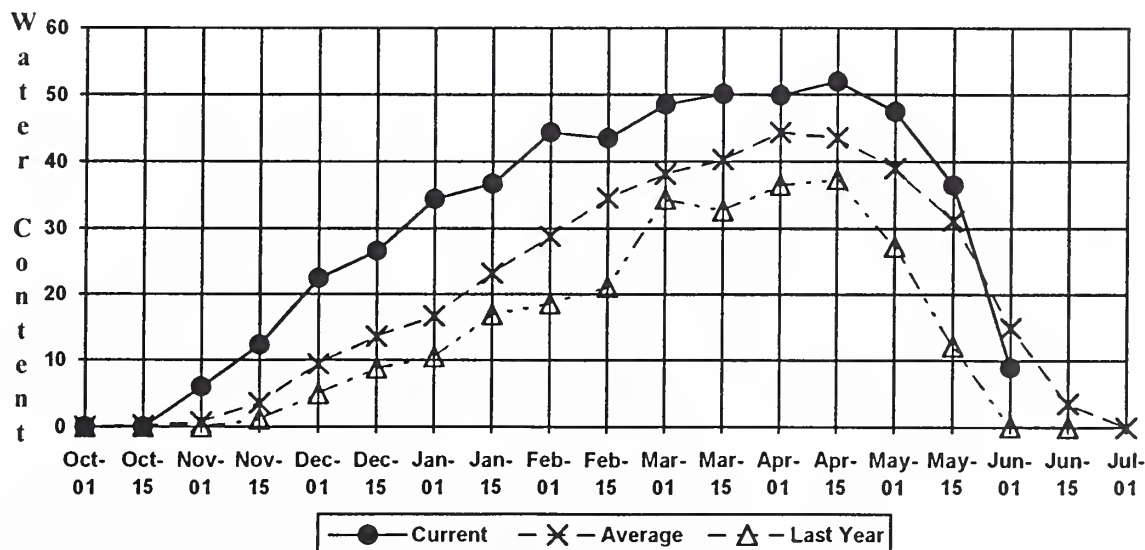
WHITE - GREEN RIVER BASINS Reservoir Storage (1000 AF) - End of May					WHITE - GREEN RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					White River	2	158	82
					Green River	2	0	60
					Cedar River	0	0	0

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

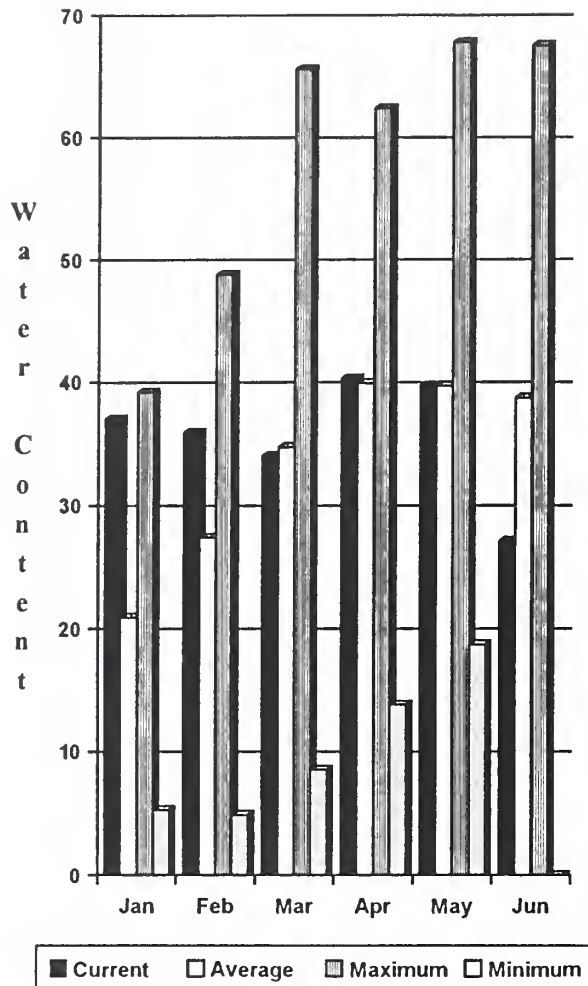
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Stampede Pass SNOTEL Elevation 3860 ft.

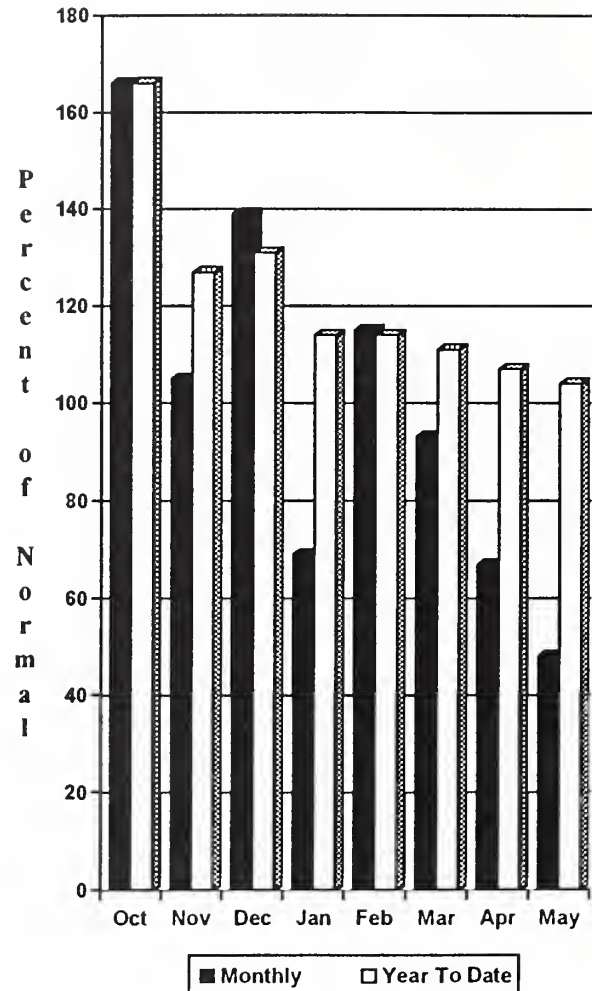


# North Puget Sound River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

Forecast for the Skagit River streamflow is for 113% of normal for the spring and summer period. May streamflow in the Skagit River was 104% of average. Other forecast points include the Baker River at 96% and Thunder Creek at 93% of average. Basin-wide precipitation for May was 48% of average, bringing water year-to-date to 104% of normal. June 1 snow cover in the Skagit River Basin was 116%, the Baker River Basin was 47% and the Snohomish River Basin was 46% of average. Rainy Pass SNOTEL, at 4780 feet, had 25.8 inches of water content. Normal June 1 water content is 20.4 inches. June 1 reservoir storage showed Ross Lake at 89% of normal and 66% of capacity. May temperatures were 3.5 degrees above normal.

For more information contact your local Natural Resources Conservation Service office.



# NORTH PUGET SOUND RIVER BASINS

## Streamflow Forecasts - June 1, 1995

Forecast Point	Forecast Period	<<===== Drier ===== Future Conditions ===== Wetter =====>>						30-Yr Avg. (1000AF)
		Chance Of Exceeding *		Chance Of Exceeding *		Chance Of Exceeding *		
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
=====		=====		=====		=====		=====
THUNDER CREEK near Newhalem	JUN-JUL	131	143	152	95	161	173	160
	JUN-SEP	215	230	240	93	250	265	259
	JUN-JUN	58	69	76	95	83	94	80
SKAGIT RIVER at Newhalem (2)	MAY-SEP	1910	2100	2222	113	2350	2530	1963
	MAY-JUL	1640	1790	1896	118	2000	2150	1608
	MAY-JUN	1170	1300	1393	117	1480	1610	1188
BAKER RIVER near Concrete	JUN-JUL	430	455	475	97	495	520	490
	JUN-SEP	665	680	690	96	700	715	717
	JUN-JUN	171	199	218	97	235	265	225

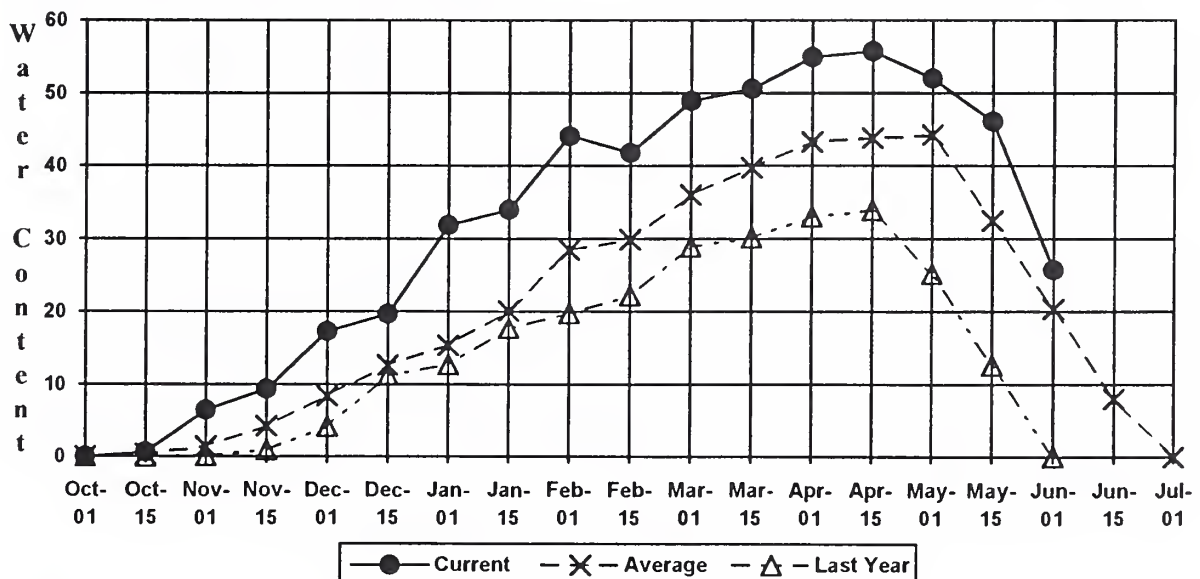
NORTH PUGET SOUND RIVER BASINS Reservoir Storage (1000 AF) - End of May					NORTH PUGET SOUND RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage *** This Year	Last Year	Avg	Watershed	Number of Data Sites	This Year as % of Last Yr	Average
ROSS	1404.1	925.3	1184.5	1033.9	Snohomish River	3	387	46
DIABLO RESERVOIR	90.6	88.6	85.3	86.1	Skagit River	4	374	116
GORGE RESERVOIR		NO REPORT			Baker River	4	100	47

\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

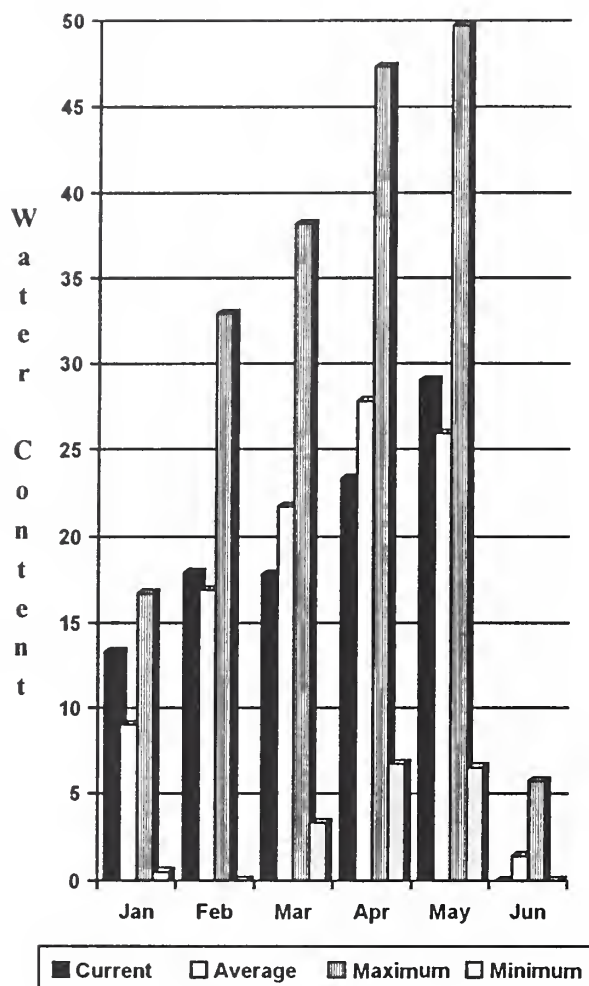
- (1) - The values listed under the 10% and 90% Chance of Exceeding are actually 5% and 95% exceedance levels.  
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## Rainy Pass SNOTEL Elevation 4780 ft.

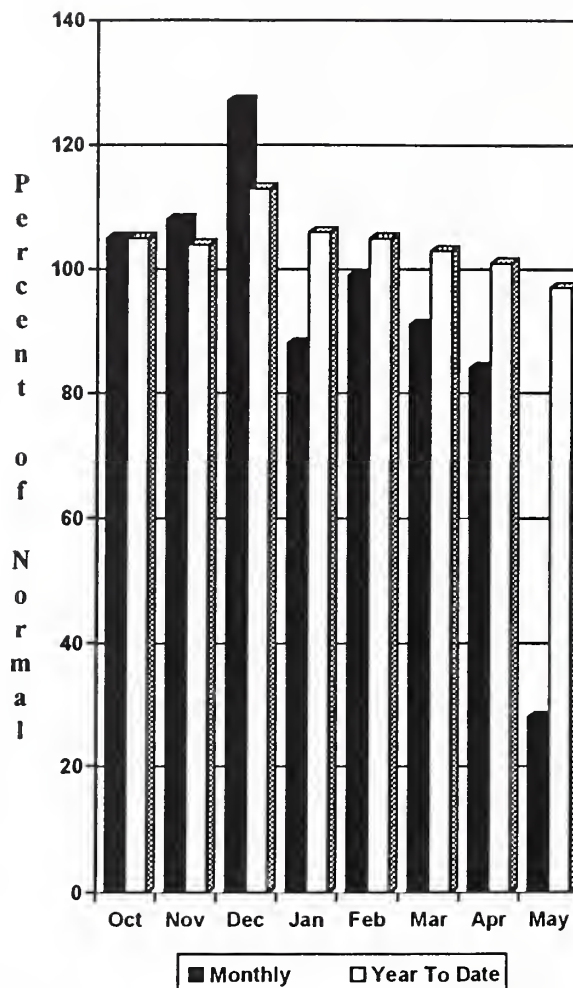


# Olympic Peninsula River Basins

Mountain Snowpack\* (inches)



Precipitation\* (% of normal)



\*Based on selected stations

June forecasts of runoff for streamflow in the basin are for 82% of average for the Dungeness River and 83% of normal for the Elwha River. May precipitation was only 28% of average. Precipitation has accumulated at 97% of normal for the water year. May precipitation at Quillayute was 1.21 inches, which is much below normal at 23% of average. Snowcover in the Olympic Basin was not reported this month, but is assumed to be melted out. Temperatures at Quillayute were 3 degrees above normal for May.

For more information contact your local Natural Resources Conservation Service office.

# OLYMPIC PENINSULA RIVER BASINS

## Streamflow Forecasts - June 1, 1995

		<<===== Drier ===== Future Conditions ===== Wetter =====>>						
Forecast Point	Forecast Period	Chance Of Exceeding *						30-Yr Avg. (1000AF)
		90% (1000AF)	70% (1000AF)	50% (Most Probable) (1000AF)	(% AVG.)	30% (1000AF)	10% (1000AF)	
DUNGENESS RIVER nr Sequim	MAY-SEP	92	106	115	82	124	138	140
	MAY-JUL	75	86	93	83	100	111	112
	MAY-JUN	50	59	66	84	73	82	79
ELWHA RIVER nr Port Angeles	MAY-SEP	275	320	353	83	385	430	427
	MAY-JUL	225	260	284	83	310	345	342

OLYMPIC PENINSULA RIVER BASINS Reservoir Storage (1000 AF) - End of May					OLYMPIC PENINSULA RIVER BASINS Watershed Snowpack Analysis - June 1, 1995			
Reservoir	Usable Capacity	*** Usable Storage ***			Watershed	Number of Data Sites	This Year as % of	
		This Year	Last Year	Avg			Last Yr	Average
					Elwha River	0	0	0
					Morse Creek	0	0	0
					Dungeness River	0	0	0
					Quilcene River	1	0	0
					Wynoochee River	0	0	0

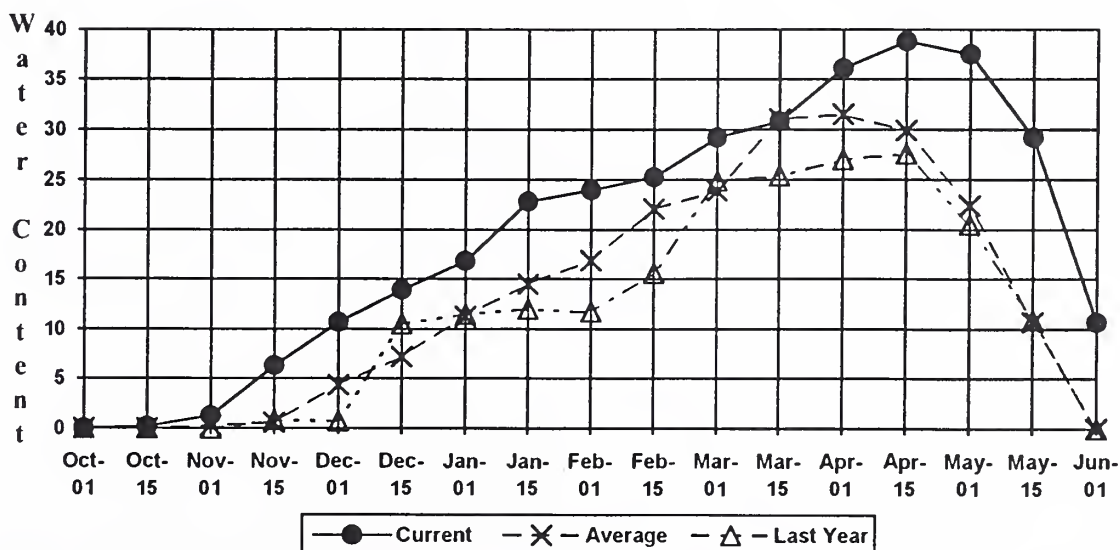
\* 90%, 70%, 30%, and 10% chances of exceeding are the probabilities that the actual flow will exceed the volumes in the table.

The average is computed for the 1961-1990 base period.

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(2) - The value is natural flow - actual flow may be affected by upstream water management.

## Mount Crag SNOTEL

### Elevation 4050 ft.







In addition to basin outlook reports, a Water Supply Forecast for the Western United States is published by the Natural Resources Conservation Service and National Weather Service monthly, January through May. Reports may be obtained from the Natural Resources Conservation Service, West National Technical Center, 101 SW Main Street, Suite 1700, Portland, OR 97204-3225.

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*Issued by*

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## The Following Organizations Cooperate With the Natural Resources Conservation Service in Snow Survey Work\*:

**Canada**

Ministry of the Environment  
Investigations Branch, Victoria, British Columbia

**State**

Washington State Department of Ecology  
Washington State Department of Natural Resources

**Federal**

Department of the Army  
Corps of Engineers  
U.S. Department of Agriculture  
Forest Service  
U.S. Department of Commerce  
NOAA, National Weather Service  
U.S. Department of Interior  
Bonneville Power Administration  
Bureau of Reclamation  
Geological Survey  
National Park Service  
Bureau of Indian Affairs

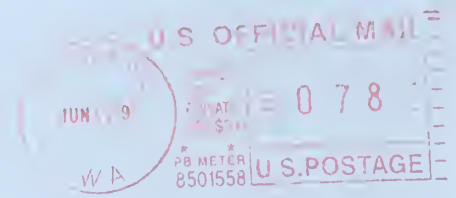
**Local**

City of Tacoma  
City of Seattle  
Chelan County P.U.D.  
Pacific Power and Light Company  
Puget Sound Power and Light Company  
Washington Water Power Company  
Snohomish County P.U.D.  
Colville Confederated Tribes  
Spokane County  
Yakama Indian Nation

**Private**

Okanogan Irrigation District  
Wenatchee Heights Irrigation District  
Newman Lake Homeowners Association

\*Other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.



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